

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.ispto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

01/15/2003

Edward W. Bulchis, Esq. DORSEY & WHITNEY LLP Suite 3400 1420 Fifth Avenue Seattle, WA 98101

EXAMINER NGUYEN, VAN THU T			
2824	365-222000		

DATE MAILED: 01/15/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043.680	01/10/2002	Timothy B. Cowles	500792.03	9219

TITLE OF INVENTION: REFRESH CONTROLLER AND ADDRESS REMAPPING CIRCUIT AND METHOD FOR DUAL MODE FULL/REDUCED DENSITY DRAMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1300	\$300	\$1600 ·	04/15/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>, THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

 Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Box ISSUE FEE

Commissioner for Patents

Washington, D.C. 20231

Fax (703)746-4000

maintenance fee notifications	elow or directed otherw: 5.	ise in Block 1, by (a) spe	echying a new co	rrespondence addi	equired). Blocks 1 through 4 sles will be mailed to the current ess; and/or (b) indicating a sepa	nate FEE ADDRESS to
Edward W. Bulch DORSEY & WHIT	oo 01/15/2003 is, Esq.		Slock 1)	Fee(s) Transmit accompanying pa formal drawing, r	te of mailing can only be used for tal. This certificate cannot a apers. Each additional paper, s must have its own certificate of m Certificate of Mailing or Trans	oe used for any other uch as an assignment or nailing or transmission.
Suite 3400 1420 Fifth Avenue Seattle, WA 98101				United States Pos envelope address	that this Fee(s) Transmittal is stal Service with sufficient postaged to the Box Issue Fee address USPTO, on the date indicated by	ge for first class mail in an above, or being facsimile
						(Depositor's name
						(Signature)
					<u></u> -	(Date)
APPLICATION NO.	FILING DATE	FIRS	T NAMED INVEN	TOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,680	01/10/2002	Ť	imothy B. Cowle	s	500792.03	9219
DRAMS APPLN, TYPE	SMALL ENTITY	ISSUE FEE		CATION FEE	FOR DUAL MODE FULL/RED	DATE DUE
nonprovisional	NO	\$1300	ı	\$300	\$1600	04/15/2003
EX. A CO.	T	A D. 70 L 13 L 170	Ot 450 Stinot	100		
EXAMIN' NGUYEN, VA		ART UNIT	365-22200			
			303-22200	·· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
 Change of correspondence CFR 1.363). 	e address or indication o	f "Fee Address" (37		on the patent from to 3 registered p		
Change of corresponder	nce address (or Change o	f Correspondence	or agents OR,	alternatively, (2) t	the name of a	
Address form PTO/SB/122	2) attached.	-		ving as a membe nt) and the name		
"Fee Address" indication PTO/SB/47; Rev 03-02 on Number is required.	n (or "Fee Address" Indi r more recent) attached. I	Jse of a Customer	registered patent attorneys or agents. If no name is listed, no name will be printed.			
<u> </u>	PESIDENCE DATA TO	DE DOINTED ON THE	DATENT (print o	r tyma)		
3. ASSIGNEE NAME AND I PLEASE NOTE: Unless an			•	••	assignee data is only appropriate	e when an assignment has
			_		assignee data is only appropriate OT a substitute for filing an assig	nment.
(A) NAME OF ASSIGNEE		(B) RE	SIDENCE: (CIT I	and STATE OR C	COUNTRY)	•
		-				
Please check the appropriate a	assignee category or cate	gories (will not be printed	on the patent)	individual 🔾	Corporation or other private gr	oup entity 🚨 government
4a. The following fee(s) are e	nclosed:	•	ment of Fee(s):			
☐ Issue Fee				of the fee(s) is end . Form PTO-2038		
□ Publication Fee		Ch Trise	•		by charge the required fee(s), or co	redit any overpayment, to
Advance Order - # of Co	- 	Deposi	t Account Number		(enclose an extra copy of this f	orm).
Commissioner for Patents is r	equested to apply the Iss	ue Fee and Publication Fe	ee (if any) or to re-	apply any previou	sly paid issue fee to the application	on identified above.
(Authorized Signature)		(Date)				
NOTE; The Issue Fee and other than the applicant; a interest as shown by the reco	registered attorney or a	agent; or the assignee of Patent and Trademark Of	rother party in			
This collection of informati obtain or retain a benefit b application. Confidentiality estimated to take 12 minute completed application form case. Any comments on t suggestions for reducing the Patent and Trademark Offic NOT SEND FEES OR Commissioner for Patents. V	on is required by 37 Cly the public which is to is governed by 35 U.S.C. is to complete, including to the USPTO. Time he amount of time you is burden, should be serie, U.S. Department of COMPLETED FORM	R 1.311. The information file (and by the USPTC 1.122 and 37 CFR 1.14. T gathering, preparing, and will vary depending upon a require to complete the to the Chief Informatic commerce, Washington, I TO THIS ADDRESS	in is required to to process) an his collection is disubmitting the the individual properties of the in			
Commissioner for Patents, V Under the Paperwork Red collection of information un	uction Act of 1995, no	persons are required to				



United States Patent and Trademark Office

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10/043,680	01/10/2002	Timothy B. Cowles	500792.03	9219
75	90 01/15/2003		EXAMINER	
Edward W. Bulch	nis, Esq.		NGUYEN, VA	N THU T
DORSEY & WHIT Suite 3400	NEY LLP	•	ART UNIT	PAPER NUMBER
1420 Fifth Avenue			2824	
Seattle, WA 98101	•		DATE MAILED: 01/15/2003	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



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10/043,680	01/10/2002	Timothy B. Cowles	500792.03	9219
75	90 01/15/2003		EXAMINER	
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DORSEY & WHIT Suite 3400	NEY LLP		ART UNIT	PAPER NUMBER
1420 Fifth Avenue			2824	
Seattle, WA 98101 UNITED STATES			DATE MAILED: 01/15/2003	

Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

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	Applicati n No.	Applicant(s)	
	10/043,680	COWLES ET AL	<u> </u>
N tic of Allowability	Examiner	Art Unit	
	VanThu Nguyen	2824	
The MAILING DATE of this communication All claims being allowable, PROSECUTION ON THE herewith (or previously mailed), a Notice of Allowance NOTICE OF ALLOWABILITY IS NOT A GRANT OF of the Office or upon petition by the applicant. See 37	MERITS IS (OR REMAINS) CLOSED in to (PTOL-85) or other appropriate commun PATENT RIGHTS. This application is sul	his application. If not incication will be mailed in	cluded due course. THIS
1. This communication is responsive to <u>amendment</u>	ent B filed on 12/2/02.		
2. The allowed claim(s) is/are 11,12,14,27,28,36,	37 and 42.		
3. \square The drawings filed on $\underline{1/10/02}$ are accepted by	the Examiner.		
4. ☐ Acknowledgment is made of a claim for foreign a) ☐ All b) ☐ Some* c) ☐ None of the control	n priority under 35 U.S.C. § 119(a)-(d) or (the:	Ŋ.	
 Certified copies of the priority docu 	uments have been received.		
2. Certified copies of the priority docu	uments have been received in Application	No	
 Copies of the certified copies of the International Bureau (PCT Rule 	e priority documents have been received i 17.2(a)).	n this national stage app	olication from the
* Certified copies not received:	. ,,		
5. Acknowledgment is made of a claim for domes	tic priority under 35 U.S.C. § 119(e) (to a ¡	provisional application).	
(a) The translation of the foreign language p	provisional application has been received.	•	
6. Acknowledgment is made of a claim for domes	tic priority under 35 U.S.C. §§ 120 and/or	121.	
Applicant has THREE MONTHS FROM THE "MAILIN below. Failure to timely comply will result in ABANDO	IG DATE" of this communication to file a re	eply complying with the RE-MONTH PERIOD IS N	requirements noted
7. A SUBSTITUTE OATH OR DECLARATION m INFORMAL PATENT APPLICATION (PTO-152) which			or NOTICE OF
8. CORRECTED DRAWINGS must be submitted.			
(a) including changes required by the Notice		(PTO-948) attached	
1) hereto or 2) to Paper No			
(b) including changes required by the propose		has been approved by t	he Examiner.
(c) including changes required by the attache			
Identifying indicia such as the application number (s of ach sheet. The drawings should be filed as a se	see 37 CFR 1.84(c)) should be written on the	drawings in the top marg	in (not the back)
9. DEPOSIT OF and/or INFORMATION about attached Examiner's comment regarding REQUIREM			ed. Note the
Attachment(s)			
 Notice of References Cited (PTO-892) Notice of Draftperson's Patent Drawing Review (Foundation Disclosure Statements (PTO-1449), Foundation Disclosure Statements (PTO-1449), Foundation Examiner's Comment Regarding Requirement for of Biological Material 	PTO-948) 4 Interview S Paper No 6 Examiner's	nformal Patent Applications Summary (PTO-413), Patent Statement of Reasons Lankel VANTHUNG PATENT EX	for Allowance
		PATENT EX	MINER